

### **REMARKS**

With this response, claims 15, 21 and 24 are amended. No claims are added or canceled. Therefore, claims 15-17, 20-22 and 24-27 are pending.

### **OBJECTIONS TO SPECIFICATION AND DRAWINGS**

Applicants contend that the objections to the Specification and Drawings have been addressed by the above amendments and the attached replacement figure.

### **REJECTIONS UNDER 35 U.S.C. § 103**

Claims 15-17, 20-22 and 24-27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Han et al. "Mining Frequent Patterns without Candidate Generation: A Frequent-Pattern Tree Approach", *Data Mining and Knowledge Discovery*, pages 53-87 (hereinafter "Han") in view of Zaki et al. "Parallel Classification for Data Mining on Shared-memory Multiprocessors", pages 1-18 (hereinafter "Zaki").

Applicants respectfully contend that these claims are not rendered obvious by the cited references for at least the following reason: the references, alone and in combination, fail to disclose or suggest at least one feature of the invention as recited in the independent claims as amended.

Applicants point out that independent claims 15, 21 and 24 as amended recite identifying transaction items of a database and determining an occurrence frequency for each item, **locking** the identified transaction items to prevent other data mining processes from selecting the identified transaction items, building a probe structure based on the identified frequent transaction items, and building a plurality of disjoint branches for the probe structure, wherein

each branch of the probe structure includes a number of identified transaction items selected based on content of the transaction items and the occurrence frequency of the transaction items, at least two branches includes **a common transaction item**, and each of the plurality of disjoint branches are capable of being **independently from the other plurality of disjoint branches**.

Applicants point out that Han contains no disclosures that describe **locking** identified transaction items to prevent other data mining processes from selecting the identified transaction items. Furthermore, Han has been cited to disclose said transaction items of the independent claims; specifically page 66 of Han. Applicants point out that page 66 of Han discloses: “Since every item in each path *P* **is unique**, there is no redundant pattern to be generated with such a combinational generation.” Thus, Applicants contend that Han fails to disclose a probe structure having a plurality of disjoint branches, wherein two branches include a common transaction item, and each of the plurality of disjoint branches are capable of being independently from the other plurality of disjoint branches.

Zaki cannot be cited to cure the defects of Han, as Zaki contains no disclosures directed towards identifying transaction items of a database and determining an occurrence frequency for each item, locking the identified transaction items to prevent other data mining processes from selecting the identified transaction items, building a probe structure based on the identified frequent transaction items, and building a plurality of disjoint branches for the probe structure, wherein each branch of the probe structure includes a number of identified transaction items selected based on content of the transaction items and the occurrence frequency of the transaction items, at least two branches includes a common transaction item, and each of the plurality of disjoint branches are capable of being independently from the other plurality of disjoint branches. Thus no combination of these references supports a rejection of independent

claims. Each of claims 16, 17, 20, 22 and 25-27 depends from one of the independent claims discussed above. Per MPEP § 2143.03, claims that depend from nonobvious independent claims are likewise nonobvious over the references.

### **CONCLUSION**

For at least the foregoing reasons, Applicants submit that the rejections have been overcome. Therefore, all pending claims are in condition for allowance, and such action is earnestly solicited. The Examiner is respectfully requested to contact the undersigned by telephone if such contact would further the examination of the present application.

Please charge any shortages and credit any overcharges to our Deposit Account number 02-2666.

Respectfully submitted,  
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Date

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